

## Contents of Volume 79, 1996

VOL. 79, NOS. 1–2

MARCH 1996

### *Research Papers*

- Correcting LAI-2000 estimates for the clumping of needles in shoots of conifers  
P. Stenberg . . . . . 1
- Simulation of optimal development for spring wheat at two locations in southern Australia under present and changed climate conditions  
Y.P. Wang and D.J. Connor . . . . . 9
- Aerodynamic conductances at the soil surface in a vineyard  
K.J. McInnes, J.L. Heilman and R.J. Lascano . . . . . 29
- Rainfall variability and agriculture in the semi-arid tropics—the Northern Territory, Australia  
W.S. Mollah and I.M. Cook . . . . . 39
- The mechanisms involved in the natural ventilation of greenhouses  
T. Boulard, J.F. Meneses, M. Mermier and G. Papadakis . . . . . 61
- Shortwave radiation budget of Sahelian vegetation. 1. Techniques of measurement and results during HAPEX-Sahel  
A. Bégué, J.L. Roujean, N.P. Hanan, S.D. Prince, M. Thawley, A. Huete and D. Tanré . . . . . 79
- Shortwave radiation budget of Sahelian vegetation. 2. Radiative transfer models  
A. Bégué, S.D. Prince, N.P. Hanan and J.L. Roujean . . . . . 97
- Seasonal variabilities in the distribution of the microclimatic factors and evapotranspiration in a shortgrass steppe  
R.L. Lapitan and W.J. Parton . . . . . 113

### *FORTHCOMING PAPERS*

- Frost mapping using NDAA AVHRR data in the Pampean region, Argentina  
H. Kerdiles, M. Grondona, R. Rodriguez and B. Sequin
- Calculation and simulation of wind controlled canopy interception of a beach forest in Northern Germany  
G. Hörmann, A. Branding, T. Clemen, M. Herbst, A. Hinrichs and F. Thamm
- Systematic errors in measuring irradiance related to levelling of the sensor  
T. Linkosalo, D. Pipatwattanakul and P. Hari

VOL. 79, NO. 3

APRIL 1996

- Calculation and simulation of wind controlled canopy interception of a beech forest in Northern Germany  
G. Hörmann, A. Branding, T. Clemen, M. Herbst, A. Hinrichs and F. Thamm . . . . . 131
- Systematic errors in measuring irradiance related to levelling of the sensor  
T. Linkosalo, D. Pipatwattanakul and P. Hari . . . . . 149

Frost mapping using NOAA AVHRR data in the Pampean region, Argentina H. Kerdiles, M. Grondona, R. Rodriguez and B. Seguin . . . . .	157
Radiation interception and use, and spectral reflectance of contrasting canopies of autumn sown faba beans and semi-leafless peas E. Ridao, C.F. Oliveira, J.R. Conde and M.I. Mínguez . . . . .	183

### Special Issue Climate Change — from Impact to Interaction

VOL. 79, NO. 4

MAY 1996

Introduction. . . . .	v
Climate change—from impact to interaction D.K.L. MacKerron . . . . .	ix
The influence of climate on CO <sub>2</sub> and CH <sub>4</sub> emissions from organic soils S.J. Chapman and M. Thurlow. . . . .	205
Modelling daily weather with multivariate time series D.R. Peiris and J.W. McNicol . . . . .	219
Effect of temperature on the incidence of nodal foot rot symptoms in winter wheat crops in England and Wales caused by <i>Fusarium culmorum</i> and <i>Microdochium nivale</i> T.R. Pettitt, D.W. Parry and R.W. Polley . . . . .	233
Effects of elevated carbon dioxide concentrations on agricultural grassland production M.B. Jones, M. Jongen and T. Doyle . . . . .	243
Implications of an altered climate for forage conservation G. Cooper and M.B. McGechan . . . . .	253
A simulation study of crop growth and development under climate change D.R. Peiris, J.W. Crawford, C. Grashoff, R.A. Jefferies, J.R. Porter and B. Marshall . . . . .	271
Modelling faba bean production in an uncertain future climate Y. Gu, J.W. Crawford, D.R. Peiris, C. Grashoff, J.W. McNicol and B. Marshall . . . . .	289
Estimating regional crop potential in Finland under a changing climate T.R. Carter and R.A. Saarikko . . . . .	301

